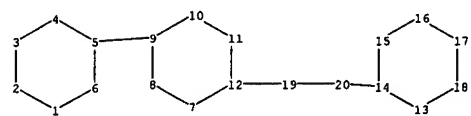
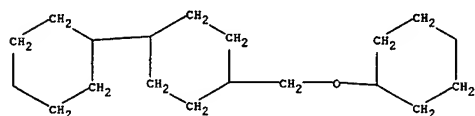


WEST Search History

DATE: Monday, May 21, 2007

<u>Hide?</u>	<u>Set Name</u>	<u>Query</u>	<u>Hit Count</u>
	<i>DB=USPT,EPAB,JPAB,DWPI,TDBD; PLUR=NO; OP=ADJ</i>		
<input checked="" type="checkbox"/>	L13	us-5645759-\$.did.	2
<input type="checkbox"/>	L12	L11 not l10	1
<input type="checkbox"/>	L11	L9 and l7	3
<input type="checkbox"/>	L10	L9 same l7	2
<input type="checkbox"/>	L9	cvcp-\$	23
<input type="checkbox"/>	L8	L7 same l6	15
<input type="checkbox"/>	L7	ccoc-?-?	36
<input type="checkbox"/>	L6	pqu-?-F or puqu-?-F or pgu-?-F or ccqg-?-F or cuqu-?-F or cccqu-?-F	46
	<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=NO; OP=ADJ</i>		
<input type="checkbox"/>	L5	\$_HVHB near F same \$CF2O\$	5
	<i>DB=USPT,EPAB,JPAB,DWPI,TDBD; PLUR=NO; OP=ADJ</i>		
<input type="checkbox"/>	L4	us-5679285-\$.did.	2
<input type="checkbox"/>	L3	L2 and l1	10
<input type="checkbox"/>	L2	\$CF2O\$	2054
<input type="checkbox"/>	L1	\$_HVHB near F	10

END OF SEARCH HISTORY



chain nodes :

19 20

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

chain bonds :

5-9 12-19 14-20 19-20

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-18 14-15 15-16 16-17 17-18

exact/norm bonds :

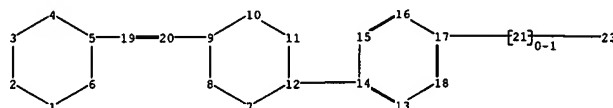
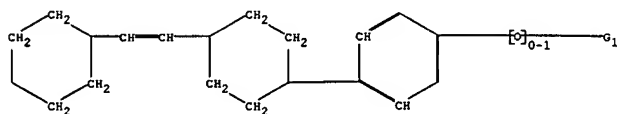
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-18 14-15 14-20 15-16 16-17 17-18

exact bonds :

5-9 12-19 19-20

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:CLASS 20:CLASS



chain.nodes :

19 20 21 23

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

chain bonds :

5-19 9-20 12-14 17-21 19-20 21-23

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-18 14-15 15-16 16-17 17-18

exact/norm bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 17-21 21-23

exact bonds :

5-19 9-20 12-14 19-20

normalized bonds :

13-14 13-18 14-15 15-16 16-17 17-18

G1:Cl,F,CF2,CN

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom
13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:CLASS 20:CLASS 21:CLASS 22:CLASS 23:CLASS

L4 ANSWER 5 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 2002:869347 CAPLUS
 DN 137:377523
 TI Substituted benzene derivative for liquid crystal composition and liquid crystal display
 IN Kondo, Tomoyuki; Matsui, Shuichi; Miyazawa, Kazutoshi; Takeuchi, Hiroyuki; Kubo, Yasuhiro; Takeshita, Fusayuki; Nakagawa, Etsuo
 PA USA
 SO U.S. Pat. Appl. Publ., 34 pp., Cont.-in-part of U. S. Ser. No. 242,811, abandoned.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002166994	A1	20021114	US 2001-917271	20010730
	US 6579577	B2	20030617		
	JP 10101599	A	19980421	JP 1996-272857	19960925
	JP 2961650	B2	19991012		
	WO 9813323	A1	19980402	WO 1997-JP3403	19970925
	W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, GH, HU, IL, IS, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
PRAI	JP 1996-272857	A	19960925		
	WO 1997-JP3403	W	19970925		
	US 1999-242811	B2	19990224		
OS	MARPAT 137:377523				

L4 ANSWER 6 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 2001:581512 CAPLUS
 DN 135:160219
 TI Liquid crystal composition and liquid crystal display device
 IN Yanai, Motoki; Kubo, Yasuhiro; Nakagawa, Etsuo
 PA Chisso Corp., Japan; Chisso Petrochemical Corp.
 SO Eur. Pat. Appl., 39 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1122292	A2	20010808	EP 2001-102169	20010202
	EP 1122292	A3	20011107		
	EP 1122292	B1	20030618		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2001288470	A	20011016	JP 2000-160243	20000530
	JP 3601415	B2	20041215		
	US 2002066887	A1	20020606	US 2001-773536	20010202
	US 6572938	B2	20030603		
PRAI	JP 2000-27959	A	20000204		
	JP 2000-160243	A	20000530		
OS	MARPAT 135:160219				

L4 ANSWER 7 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 2000:785766 CAPLUS
 DN 133:357364
 TI Liquid crystal medium for liquid crystal display
 IN Reiffenrath, Volker; Schuler, Brigitte; Tarumi, Kazuaki

PA Merck Patent G.m.b.H., Germany
SO Ger. Offen., 20 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10018599	A1	20001109	DE 2000-10018599	20000414
	JP 2000345161	A	20001212	JP 2000-133589	20000502
	US-6399162	B1	20020604	US 2000-562752	20000502
PRAI	DE-1999-19920125	A1	19990503		
OS	MARPAT 133:357364				

L4 ANSWER 8 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2000:457005 CAPLUS
DN 133:97156
TI Preparation of (difluoromethyl)benzene derivatives as liquid crystal compounds exhibiting negative anisotropy of permittivity
IN Tamura, Norio; Fujita, Atsuko; Takeuchi, Hiroyuki; Takeshita, Fusayuki; Nakagawa, Etsuo
PA Chisso Corporation, Japan
SO PCT Int. Appl., 104 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000039063	A1	20000706	WO 1999-JP6973	19991213
	W: DE, JP, US				
	DE 19982965	T0	20010426	DE 1999-19982965	19991213
	US 6576303	B1	20030610	US 2000-622826	20000824
PRAI	JP-1998-370025	A	19981225		
	WO 1999-JP6973	W	19991213		
OS	MARPAT 133:97156				

RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2000:368280 CAPLUS
DN 133:24766
TI Aniline derivatives, liquid-crystal composition containing the same, and liquid-crystal display device
IN Fujita, Atsuko; Tamura, Norio; Takeuchi, Hiroyuki; Takeshita, Fusayuki; Nakamura, Nobumasa; Nakagawa, Etsuo
PA Chisso Corporation, Japan
SO PCT Int. Appl., 80 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000031019	A1	20000602	WO 1999-JP6505	19991122
	W: JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6485799	B1	20021126	US 2000-600901	20000724
PRAI	JP 1998-332609	A	19981124		
	WO 1999-JP6505	W	19991122		
OS	MARPAT 133:24766				

RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 1999:78519 CAPLUS
 DN 130:189736
 TI Novel liquid-crystal compound, liquid-crystal composition, and liquid-crystal display device
 IN Sawada, Shinichi; Shibata, Koichi; Takeuchi, Hiroyuki; Matsui, Shuichi; Kobayashi, Katsuhiko; Miyazawa, Kazutoshi; Yagi, Hirotake; Takeshita, Nobuyuki; Nakagawa, Etsuo
 PA Chisso Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 101 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11029582	A	19990202	JP 1997-202271	19970711
PRAI	JP 1997-202271		19970711		
OS	MARPAT 130:189736				

L4 ANSWER 11 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 1998:724165 CAPLUS
 DN 130:59198
 TI Fluoroalkyl ethers, liquid crystal compositions containing them, and liquid crystal displays
 IN Yano, Shinichi; Kato, Ryuji; Abe, Kazutaka; Kato, Takashi; Miyazawa, Kazutoshi; Takeuchi, Hiroyuki; Kubo, Yasuhiro; Takeshita, Fusayuki; Nakagawa, Etsuo
 PA Chisso Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 74 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10298127	A	19981110	JP 1997-121618	19970424
PRAI	JP 1997-121618		19970424		
OS	MARPAT 130:59198				

L4 ANSWER 12 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 1998:614232 CAPLUS
 DN 129:296227
 TI Halo-substituted benzene derivative, and liquid-crystal composition and display device using it
 IN Kobayashi, Katsuhiko; Matsui, Shuichi; Miyazawa, Kazutoshi; Takeuchi, Hiroyuki
 PA Chisso Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 117 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10251186	A	19980922	JP 1997-72708	19970310
PRAI	JP 1997-72708		19970310		
OS	MARPAT 129:296227				

L4 ANSWER 13 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 1998:568790 CAPLUS
 DN 129:223634
 TI Preparation of liquid-crystalline compounds having bicyclo[1.1.1]pentane

structure, liquid-crystal composition, and liquid-crystal display element
IN De Meijere, Armin; Messner, Matthias; Kazhushkov, Sergei; Demus, Dietrich;
Kobayashi, Katsuhiko; Miyazawa, Kazutoshi; Matsui, Shuichi; Takeuchi,
Hiroyuki; et al.

PA Chisso Corporation, Japan

SO PCT Int. Appl., 175 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	<u>WO 9835924</u>	A1	19980820	WO 1998-JP602	19980213
	W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, ID, IL, IS, JP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9858805	A	19980908	AU 1998-58805	19980213
	EP 987238	A1	20000322	EP 1998-902222	19980213
	R: DE				
PRAI	JP 1997-44615	A	19970213		
	WO 1998-JP602	W	19980213		

OS MARPAT 129:223634

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 14 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1998:527299 CAPLUS

DN 129:168526

TI Preparation of liquid-crystal compounds having fluorinated alkyl groups,
liquid-crystal composition, and liquid-crystal display element

IN Haseba, Yasuhiro; Miyazawa, Kazutoshi; Matsui, Shuichi; Takeuchi,
Hiroyuki; Kubo, Yasuhiro; Takeshita, Fusayuki; Nakagawa, Etsuo

PA Chisso Corporation, Japan

SO PCT Int. Appl., 103 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9832722	A1	19980730	WO 1998-JP365	19980129
	W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, ID, IL, IS, JP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9856789	A	19980818	AU 1998-56789	19980129
	<u>US 6248260</u>	B1	20010619	US 1999-355285	19990728
PRAI	JP 1997-29541	A	19970129		
	WO 1998-JP365	W	19980129		

OS MARPAT 129:168526

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 15 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1998:424215 CAPLUS

DN 129:115693

TI Cyclohexane derivatives, liquid-crystal composition, and liquid-crystal

display element

IN Fujita, Atsuko; Matsui, Shuichi; Miyazawa, Kazutoshi; Takeuchi, Hiroyuki;
Takeshita, Fusayuki; Nakagawa, Etsuo
PA Chisso Corp., Japan; Fujita, Atsuko; Matsui, Shuichi; Miyazawa, Kazutoshi;
Takeuchi, Hiroyuki; Takeshita, Fusayuki; Nakagawa, Etsuo
SO PCT Int. Appl., 66 pp.
CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9827048	A1	19980625	WO 1997-JP4632	19971216
	W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, ID, IL, IS, JP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9854130	A	19980715	AU 1998-54130	19971216
	EP 947495	A1	19991006	EP 1997-947959	19971216
	R: DE, FR, GB				
	CN 1245483	A	20000223	CN 1997-181478	19971216
	US 6168839	B1	20010102	US 1999-331428	19990621
PRAI	JP 1996-354319	A	19961219		
	WO 1997-JP4632	W	19971216		

OS MARPAT 129:115693

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 16 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1998:424209 CAPLUS

DN 129:102327

TI Preparation of difluorophenyl derivatives as liquid-crystal compounds for liquid-crystal composition

IN Kato, Takashi; Matsui, Shuichi; Miyazawa, Kazutoshi; Takeshita, Fusayuki; Nakagawa, Etsuo

PA Chisso Corp., Japan

SO PCT Int. Appl., 113 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9827036	A1	19980625	WO 1997-JP4633	19971216
	W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, ID, IL, IS, JP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9854131	A	19980715	AU 1998-54131	19971216
	EP 949232	A1	19991013	EP 1997-947960	19971216
	R: DE				
	TW 473536	B	20020121	TW 1997-86119020	19971216
	US 2002038858	A1	20020404	US 1999-331058	19990616
	US 6458433	B1	20021001		
PRAI	JP 1996-353203	A	19961216		
	WO 1997-JP4633	W	19971216		

OS MARPAT 129:102327

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 17 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 1998:388493 CAPLUS
 DN 129:60627
 TI Conjugated nitrile derivatives, liquid crystal compounds, and liquid crystal display elements
 IN Fujita, Atsuko; Tamura, Norio; Matsui, Shuichi; Miyazawa, Kazutoshi; Takeuchi, Hiroyuki; Kubo, Yasuhiro; Takeshita, Husayuki; Nakagawa, Etsuo
 PA Chisso Corporation, Japan
 SO PCT Int. Appl., 120 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9823583	A1	19980604	WO 1997-JP4328	19971127
	W: JP, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 947501	A1	19991006	EP 1997-913456	19971127
	R: DE				
	US 6149838	A	20001121	US 1999-319025	19990528
PRAI	JP 1996-332771	A	19961128		
	JP 1996-346636	A	19961210		
	WO 1997-JP4328	W	19971127		
OS	MARPAT 129:60627				

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 18 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 1998:388484 CAPLUS
 DN 129:88077
 TI Fluorine-substituted benzene derivatives, liquid-crystal composition, and liquid-crystal display element
 IN Kondo, Tomoyuki; Miyazawa, Kazutoshi; Takeuchi, Hiroyuki; Matsui, Shuichi; Hisatsune, Yasusuke; Takeshita, Fusayuki; Nakagawa, Etsuo
 PA Chisso Corporation, Japan
 SO PCT Int. Appl., 89 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9823564	A1	19980604	WO 1997-JP4331	19971127
	W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, ID, IL, IS, JP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9851917	A	19980622	AU 1998-51917	19971127
	EP 949231	A1	19991013	EP 1997-946802	19971127
	EP 949231	B1	20070502		
	R: DE, FR, GB				
	TW 482819	B	20020411	TW 1997-86117941	19971128
	US 6210603	B1	20010403	US 1999-308983	19990528
PRAI	JP 1996-332768	A	19961128		
	WO 1997-JP4331	W	19971127		
OS	MARPAT 129:88077				

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 19 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 1998:388483 CAPLUS
 DN 129:60626
 TI Liquid crystal compounds exhibiting negative anisotropy of permittivity,
 liquid crystal compositions, and liquid crystal displays
 IN Kondo, Tomoyuki; Matsui, Shuichi; Miyazawa, Kazutoshi; Takeuchi, Hiroyuki;
 Takeshita, Fusayuki; Nakagawa, Etsuo
 PA Chisso Corporation, Japan
 SO PCT Int. Appl., 76 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9823563	A1	19980604	WO 1997-JP4330	19971127
	W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, ID, IL, IS, JP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9850673	A	19980622	AU 1998-50673	19971127
	EP 945418	A1	19990929	EP 1997-913458	19971127
	EP 945418	B1	20040407		
	R: DE, FR, GB				
	TW 457289	B	20011001	TW 1997-86117946	19971128
	US 6210761	B1	20010403	US 1999-319008	19990528
PRAI	JP 1996-332767	A	19961128		
	WO 1997-JP4330	W	19971127		

OS MARPAT 129:60626
 RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 20 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 1998:364954 CAPLUS
 DN 129:60620
 TI Polyhaloalkyl ether derivatives for liquid crystal compositions for
 display devices
 IN Andou, Tugumiti; Shibata, Koichi; Matsui, Shuichi; Miyazawa, Kazutoshi;
 Takeuchi, Hiroyuki; Hisatsune, Yasusuke; Takeshita, Fusayuki; Nakagawa,
 Etsuo; Kobayashi, Katsuhiko; Tomi, Yoshitaka
 PA Chisso Corporation, Japan
 SO Eur. Pat. Appl., 137 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 844229	A1	19980527	EP 1997-120363	19971120
	EP 844229	B1	20020206		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 10204016	A	19980804	JP 1997-297678	19971015
	JP 3287288	B2	20020604		
	JP 2002179606	A	20020626	JP 2001-327205	19971015
	US 6007740	A	19991228	US 1997-966455	19971107
	TW 464685	B	20011121	TW 1997-86117299	19971119
	EP 1029842	A2	20000823	EP 2000-109051	19971120
	EP 1029842	A3	20010221		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, SI, LT, LV, FI, RO

AT 212963	T	20020215	AT 1997-120363	19971120
CN 1188134	A	19980722	CN 1997-108399	19971122
US 6187223	B1	20010213	US 1999-335783	19990618
PRAI JP 1996-327854	A	19961122		
JP 1997-297678	A	19971015		
US 1997-966455	A3	19971107		
EP 1997-120363	A3	19971120		

OS MARPAT 129:60620

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 21 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1998:323241 CAPLUS

DN 129:11051

TI Preparation of fluoroalkylated dioxane derivatives, liquid crystal compositions, and liquid-crystal display elements

IN Haseba, Yasuhiro; Matsui, Shuichi; Miyazawa, Kazutoshi; Takeuchi, Hiroyuki; Kubo, Yasuhiro; Takeshita, Fusayuki; Nakagawa, Etsuo

PA Chisso Corp., Japan

SO PCT Int. Appl., 108 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9820006	A1	19980514	WO 1997-JP4069	19971107
W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, ID, IL, IS, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
JP 10139778	A	19980526	JP 1996-311405	19961107
AU 9748861	A	19980529	AU 1997-48861	19971107
PRAI JP 1996-311405	A	19961107		
WO 1997-JP4069	W	19971107		

OS MARPAT 129:11051

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 22 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1998:268503 CAPLUS

DN 129:10735

TI Liquid crystal composition containing dioxane derivatives for liquid crystal element

IN Haseba, Yasuhiro; Kondou, Tomoyuki; Matsui, Shuichi; Miyazawa, Kazutoshi; Takeuchi, Hiroyuki; Hisatsune, Yasusuke; Takeshita, Fusayuki; Nakagawa, Etsuo

PA Chisso Corp., Japan; Haseba, Yasuhiro; Kondou, Tomoyuki; Matsui, Shuichi; Miyazawa, Kazutoshi; Takeuchi, Hiroyuki; Hisatsune, Yasusuke; Takeshita, Fusayuki; Nakagawa, Etsuo

SO PCT Int. Appl., 156 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9817664	A1	19980430	WO 1997-JP2257	19970630
W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, GH, HU, JP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK,				

TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR,
GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA,
GN, ML, MR, NE, SN, TD, TG

AU 9732768 A 19980515 AU 1997-32768 19970630
EP 881221 A1 19981202 EP 1997-928518 19970630

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO

CN 1211978 A 19990324 CN 1997-192489 19970630

US 6235355 B1 20010522 US 1998-101999 19980721

PRAI ~~JP 1996-297984~~ A 19961022

WO 1997-JP2257 W 19970630

OS MARPAT 129:10735

RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 23 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1998:265820 CAPLUS

DN 128:328868

TI Liquid crystal compound having alkynyl group for liquid crystal
composition for display device

IN Miyazawa, Kazutoshi; Matsui, Shuichi; Takeuchi, Hiroyuki; Kubo, Yasuhiro;
Takeshita, Fusayuki; Nakagawa, Etsuo

PA Chisso Corp., Japan

SO Eur. Pat. Appl., 69 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI EP 837045	A1	19980422	EP 1997-117945	19971016
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, FI

JP 10175888	A	19980630	JP 1997-183144	19970624
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<u>US 5879585</u>	A	19990309	US 1997-948516	19971010
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PRAI ~~JP 1996-294491~~ A 19961016

JP 1997-183144 A 19970624

OS MARPAT 128:328868

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 24 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1998:219783 CAPLUS

DN 128:288673

TI Preparation of liquid crystal compounds having negative permittivity,
liquid crystal compositions, and liquid crystal display device

IN Matsui, Shuichi; Ando, Tsugumichi; Miyazawa, Kazutoshi; Takeuchi,
Hiroyuki; Takeshita, Fusayuki; Nakagawa, Etsuo

PA Chisso Corp., Japan; Matsui, Shuichi; Ando, Tsugumichi; Miyazawa,
Kazutoshi; Takeuchi, Hiroyuki; Takeshita, Fusayuki; Nakagawa, Etsuo

SO PCT Int. Appl., 130 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI WO 9814418	A1	19980409	WO 1997-JP3503	19971001
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W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KR, KZ,
LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL,
PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US,
UZ, VN, YU, ZW

RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR,
GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA,
GN, ML, MR, NE, SN, TD, TG

AU 9743981 A 19980424 AU 1997-43981 19971001
EP 930288 A1 19990721 EP 1997-942217 19971001

R: DE, FR, GB

KR 2000048860 A 20000725 KR 1999-702862 19990402
PRAI JP 1996-281369 A 19961002
WO 1997-JP3503 W 19971001

OS MARPAT 128:288673

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 25 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1998:208509 CAPLUS

DN 128:302171

TI Fluoroalkylated liquid-crystal compounds, liquid-crystal compositions, and
liquid-crystal display elements

IN Kondou, Tomoyuki; Matsui, Shuichi; Miyazawa, Kazutoshi; Takeuchi,
Hiroyuki; Kubo, Yasuhiro; Takeshita, Fusayuki; Nakagawa, Etsuo

PA Chisso Corporation, Japan

SO PCT Int. Appl., 86 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI WO 9813324	A1	19980402	WO 1997-JP3404	19970925
W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, GH, HU, IL, IS, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				

JP 10101600	A	19980421	JP 1996-272858	19960925
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AU 9743206	A	19980417	AU 1997-43206	19970925
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EP 950651	A1	19991020	EP 1997-941231	19970925
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R: DE, FR, GB

US 6254941	B1	20010703	US 1999-269286	19990325
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PRAI JP 1996-272858 A 19960925

WO 1997-JP3404 W 19970925

OS MARPAT 128:302171

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 26 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1998:208508 CAPLUS

DN 128:288385

TI Substituted benzene derivative, liquid-crystal composition, and
liquid-crystal display element

IN Kondou, Tomoyuki; Matsui, Shuichi; Miyazawa, Kazutoshi; Takeuchi,
Hiroyuki; Kubo, Yasuhiro; Takeshita, Fusayuki; Nakagawa, Etsuo

PA Chisso Corp., Japan

SO PCT Int. Appl., 81 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI WO 9813323	A1	19980402	WO 1997-JP3403	19970925
W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, GH, HU, IL, IS,				

KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI,
SK, SL, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU,
TJ, TM

RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR,
GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA,
GN, ML, MR, NE, SN, TD, TG

JP 10101599	A	19980421	JP 1996-272857	19960925
JP 2961650	B2	19991012		
AU 9743205	A	19980417	AU 1997-43205	19970925
EP 934919	A1	19990811	EP 1997-941230	19970925

R: DE, FR, GB

CN 1237952	A	19991208	CN 1997-199897	19970925
KR 2000048579	A	20000725	KR 1999-702506	19990324
US 2002166994	A1	20021114	US 2001-917271	20010730
US 6579577	B2	20030617		

PRAI JP 1996-272857 A 19960925
WO 1997-JP3403 W 19970925
US 1999-242811 B2 19990224
OS MARPAT 128:288385

RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 27 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1998:208507 CAPLUS

DN 128:288384

TI Terphenyl derivative, liquid-crystal composition, and liquid-crystal display element

IN Kondou, Tomoyuki; Matsui, Shuichi; Miyazawa, Kazutoshi; Takeuchi, Hiroyuki; Kubo, Yasuhiro; Takeshita, Fusayuki; Nakagawa, Etsuo

PA Chisso Corp., Japan

SO PCT Int. Appl., 69 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9813322	A1	19980402	WO 1997-JP3402	19970925
W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, GH, HU, IL, IS, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
JP 10101598	A	19980421	JP 1996-272856	19960925
JP 2903493	B2	19990607		
AU 9743204	A	19980417	AU 1997-43204	19970925
CN 1231655	A	19991013	CN 1997-198211	19970925
CN 1134386	B	20040114		
EP 989107	A1	20000329	EP 1997-941229	19970925
EP 989107	B1	20060816		
R: DE, FR, GB				
KR 2000048590	A	20000725	KR 1999-702524	19990324
US 6344247	B1	20020205	US 1999-269287	19990325
US 2001038891	A1	20011108	US 2001-836315	20010418
US 6596349	B2	20030722		
US 2001038092	A1	20011108	US 2001-836317	20010418
US 6555185	B2	20030429		
PRAI JP 1996-272856	A	19960925		
WO 1997-JP3402	W	19970925		
US 1999-269287	A3	19990325		
OS MARPAT 128:288384				

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 28 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 1998:197478 CAPLUS
 DN 128:237548
 TI Preparation of alkoxybenzene derivatives for liquid-crystal composition and liquid-crystal display element
 IN Matsui, Shuichi; Ando, Tsugumichi; Miyazawa, Kazutoshi; Takeuchi, Hiroyuki; Hisatsune, Yasusuke; Takeshita, Fusayuki; Nakagawa, Etsuo
 PA Chisso Corporation, Japan; Matsui, Shuichi; Ando, Tsugumichi; Miyazawa, Kazutoshi; Takeuchi, Hiroyuki; Hisatsune, Yasusuke; Takeshita, Fusayuki; Nakagawa, Etsuo
 SO PCT Int. Appl., 134 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9812166	A1	19980326	WO 1997-JP3258	19970916
W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, ID, IL, IS, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
JP 10087543	A	19980407	JP 1996-266804	19960917
AU 9742212	A	19980414	AU 1997-42212	19970916
<u>US 6177154</u>	B1	20010123	US 1999-254682	19990316
PRAI JP 1996-266804	A	19960917		
WO 1997-JP3258	W	19970916		

OS MARPAT 128:237548

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 29 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 1998:163541 CAPLUS
 DN 128:251036
 TI Tetracyclic compound having lateral halogen substituent and liquid crystal composition comprising the same
 IN Koga, Koji; Ando, Tsugumichi; Takeuchi, Hiroyuki; Matsui, Shuichi; Miyazawa, Kazutoshi; Hachiya, Norihisa; Nakagawa, Etsuo
 PA Chisso Corporation, Japan
 SO PCT Int. Appl., 117 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9808792	A1	19980305	WO 1997-JP2848	19970818
W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, IL, IS, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
JP 10072384	A	19980317	JP 1996-245525	19960828
AU 9738655	A	19980319	AU 1997-38655	19970818
EP 934237	A1	19990811	EP 1997-935800	19970818
R: DE, FR, GB				
<u>US 6174458</u>	B1	20010116	US 1999-242921	19990226
PRAI JP 1996-245525	A	19960828		

WO 1997-JP2848 W 19970818
OS MARPAT 128:251036

L4 ANSWER 30 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1998:157607 CAPLUS
DN 128:277194
TI Liquid-crystalline compound, liquid crystal composition, and liquid
crystal display device
IN Miyasawa, Kazutoshi; Takeuchi, Hiroyuki; Matsui, Akiichi; Hachitani,
Norihiisa; Takeshita, Fusayuki; Nakagawa, Etsuo
PA Chisso Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 54 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 10067694	A	19980310	JP 1996-242697	19960826
PRAI JP 1996-242697		19960826		
OS MARPAT 128:277194				

L4 ANSWER 31 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1998:147286 CAPLUS
DN 128:237158
TI Difluorophenyl derivative for liquid crystal composition for display
device
IN Kato, Takashi; Matsui, Shuichi; Miyazawa, Kazutoshi; Hisatsune, Yasusuke;
Nakagawa, Etsuo
PA Chisso Corporation, Japan
SO PCT Int. Appl., 114 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9807674	A1	19980226	WO 1997-JP2871	19970819
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9738664	A	19980306	AU 1997-38664	19970819
EP 922021	A1	19990616	EP 1997-935821	19970819
R: DE, FR, GB				
CN 1227536	A	19990901	CN 1997-197235	19970819
JP 2001500120	T	20010109	JP 1998-510579	19970819
US 6174459	B1	20010116	US 1999-230949	19990204
PRAI JP 1996-238361	A	19960821		
WO 1997-JP2871	W	19970819		
OS MARPAT 128:237158				

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 32 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1998:13921 CAPLUS
DN 128:108878
TI Preparation of fluorinated alkyl ether compounds for liquid-crystal
display devices
IN Kondo, Tomoyuki; Matsui, Shuichi; Miyazawa, Kazutoshi; Takeuchi, Hiroyuki;

Takeshita, Fusayuki; Nakagawa, Etsuo
PA Chisso Corporation, Japan
SO PCT Int. Appl., 88 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9747576	A1	19971218	WO 1997-JP1936	19970606
	W: AL, AU, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, IL, IS, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	JP 10001450	A	19980106	JP 1996-174347	19960614
	AU 9729793	A	19980107	AU 1997-29793	19970606
	EP 926120	A1	19990630	EP 1997-924341	19970606
	R: DE, FR, GB				
	US 6124005	A	20000926	US 1998-147387	19981214
PRAI	JP 1996-174347	A	19960614		
	WO 1997-JP1936	W	19970606		
OS	MARPAT 128:108878				

L4 ANSWER 33 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1997:802091 CAPLUS
DN 128:121827
TI Liquid-crystalline alkadiene compounds, compositions containing them, and liquid crystal display
IN Onishi, Noriyuki; Matsui, Akiichi; Takeuchi, Hiroyuki; Kubo, Yasuhiro; Nakagawa, Etsuo
PA Chisso Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 63 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09323944	A	19971216	JP 1996-165278	19960604
	JP 3579756	B2	20041020		
PRAI	JP 1996-165278		19960604		

L4 ANSWER 34 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1997:754494 CAPLUS
DN 128:82271
TI Chiral nematic liquid-crystal composition and display with high voltage retention
IN Takeshita, Fusayuki; Miyazawa, Kazutoshi; Muraki, Katsuyuki; Matsushita, Tetsuya; Nakagawa, Etsuo
PA Chisso Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 38 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09302344	A	19971125	JP 1996-140962	19960510
PRAI	JP 1996-140962		19960510		
OS	MARPAT 128:82271				

L4X ANSWER 35 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1997:650318 CAPLUS
 DN 127:286201
 TI Preparation of alkenyl compounds, liquid crystal compositions, and liquid crystal display devices
 IN Kondo, Tomoyuki; Matsui, Shuichi; Miyazawa, Kazutoshi; Sekiguchi, Yasuko; Nakagawa, Etsuo
 PA Chisso Corporation, Japan
 SO PCT Int. Appl., 95 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9735822	A1	19971002	WO 1997-JP1047	19970327
	W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	TW 386106	B	20000401	TW 1997-86103597	19970321
	AU 9720433	A	19971017	AU 1997-20433	19970327
	EP 893421	A1	19990127	EP 1997-908522	19970327
	EP 893421	B1	20020306		
	R: DE, FR, GB				
	US 6231934	B1	20010515	US 1998-155348	19980928
PRAI	JP 1996-99251	A	19960328		
	WO 1997-JP1047	W	19970327		
OS	MARPAT 127:286201				

L4 ANSWER 36 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 1997:111240 CAPLUS
 DN 126:138063
 TI Preparation of liquid crystal compounds having substituted alkyl groups, and liquid crystal composition, and liquid crystal display element
 IN Kondo, Tomoyuki; Matsui, Shuichi; Shibata, Kouichi; Miyazawa, Kazutoshi; Hachiya, Norihisa; Nakagawa, Etsuo
 PA Chisso Corp., Japan
 SO PCT Int. Appl., 20 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9641787	A1	19961227	WO 1996-JP1550	19960607
	W: JP, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 857708	A1	19980812	EP 1996-916337	19960607
	R: CH, DE, FR, GB, LI				
	JP 3477620	B2	20031210	JP 1997-502899	19960607
	US 6174456	B1	20010116	US 1997-981145	19971208
PRAI	JP 1995-166802	A	19950608		
	WO 1996-JP1550	W	19960607		
OS	MARPAT 126:138063				

~~L4~~ ANSWER 37 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 1997:76686 CAPLUS
 DN 126:97291
 TI Acrylonitrile derivatives, liquid-crystal composition, and liquid-crystal display device
 IN Fujita, Atsuko; Matsui, Shuichi; Shibata, Koichi; Miyazawa, Kazutoshi; Sekiguchi, Yasuko; Nakagawa, Etsuo

PA Chisso Corp., Japan
SO PCT Int. Appl., 224 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9632374	A1	19961017	WO 1996-JP1012	19960412
	W: CN, JP, KR, SG, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	JP 08283226	A	19961029	JP 1995-89747	19950414
	EP 820983	A1	19980128	EP 1996-909356	19960412
	R: AT, BE, CH, DE, DK, FR, GB, IT, LI, NL, SE				
	JP 3498965	B2	20040223	JP 1996-530888	19960412
	US 5976408	A	19991102	US 1997-930986	19971219
PRAI	JP 1995-89747	A	19950414		
	WO 1996-JP1012	W	19960412		
OS	MARPAT 126:97291				

~~L4~~ ANSWER 38 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1996:724140 CAPLUS
DN 125:343103
TI Optically active liquid crystal compound containing deuterium atoms for display device
IN Koizumi, Yasuyuki; Demus, Dietrich; Matsui, Shuichi; Miyazawa, Kazutoshi; Sekiguchi, Yasuko; Nakagawa, Etsuo
PA Chisso Corp., Japan
SO Eur. Pat. Appl., 88 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 735015	A2	19961002	EP 1996-300655	19960130
	EP 735015	A3	19970611		
	R: CH, DE, FR, GB, IT, LI				
	JP 08325174	A	19961210	JP 1995-347773	19951214
PRAI	JP 1995-100105	A	19950331		
OS	MARPAT 125:343103				

L4 ANSWER 39 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1996:504094 CAPLUS
DN 125:167541
TI Preparation of [4-(2-cyclohexylethenyl)cyclohexyl]benzene derivatives
IN Bartmann, Ekkehard; Schoen, Sabine; Tarumi, Kazuaki
PA Merck Patent GmbH, Germany
SO Ger. Offen., 43 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19505189	A1	19960627	DE 1995-19505189	19950216
	EP 727406	A1	19960821	EP 1995-118849	19951130
	EP 727406	B1	20010905		
	R: DE, GB				
	JP 08253436	A	19961001	JP 1996-11059	19960125
	<u>US 5679285</u>	A	19971021	US 1996-602063	19960215
PRAI	DE 1994-4446238	A1	19941223		
	DE 1995-19505189	A	19950216		
OS	MARPAT 125:167541				

L4 ANSWER 40 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 1996:313691 CAPLUS
 DN 124:356416
 TI Ethynyl compound and liquid crystal medium
 IN Reiffenrath, Volker; Rieger, Bernhard; Junge, Michael; Tarumi, Kazuaki
 PA Merck Patent Gmbh, Germany
 SO Ger. Offen., 17 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4435154	A1	19960404	DE 1994-4435154	19940930
PRAI	DE 1994-4435154		19940930		
OS	MARPAT 124:356416				

L4 ANSWER 41 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 1996:304000 CAPLUS
 DN 124:356419
 TI A liquid crystal composition and a liquid crystal display element using the same
 IN Tomi, Yoshitaka; Nakagawa, Etsuo; Sawada, Shinichi
 PA Chisso Corp., Japan
 SO Eur. Pat. Appl., 34 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 704512	A1	19960403	EP 1995-113991	19950906
	EP 704512	B1	20000308		
	R: CH, DE, GB, LI				
	JP 08073857	A	19960319	JP 1994-238555	19940906
	JP 3389697	B2	20030324		
	US 5645759	A	19970708	US 1995-524441	19950906
PRAI	JP 1994-238555	A	19940906		
OS	MARPAT 124:356419				

L4 ANSWER 42 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 1995:290065 CAPLUS
 DN 122:68878
 TI Preparation of dicyclohexylethylene derivatives as liquid crystals
 IN Ohnishi, Noriyuki; Matsui, Shuuichi; Kondo, Tomoyuki; Goto, Yasuyuki
 PA Chisso Corp., Japan
 SO PCT Int. Appl., 53 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9420443	A1	19940915	WO 1994-JP389	19940310
	W: AU, JP, KR, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9462197	A	19940926	AU 1994-62197	19940310
	AU 676542	B2	19970313		
	EP 688754	A1	19951227	EP 1994-909299	19940310
	EP 688754	B1	19981007		
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	AT 171929	T	19981015	AT 1994-909299	19940310
	JP 3418398	B2	20030623	JP 1994-519827	19940310

US 5641432 A 19970624 US 1995-522322 19951026
 PRAI JP 1993-77551 A 19930310
 WO 1994-JP389 W 19940310
 OS MARPAT 122:68878

L4 ANSWER 43 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 1994:496266 CAPLUS
 DN 121:96266
 TI 2-Fluorobenzonitrile derivative and a liquid-crystal composition
 containing it
 IN Matsui, Shuichi; Onji, Yuichi; Fujita, Atsuko; Kondo, Tomoyuki; Goto,
 Yasuyuki
 PA Chisso Corp., Japan
 SO Eur. Pat. Appl., 26 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 588291	A1	19940323	EP 1993-114703	19930913
	EP 588291	B1	19960327		
	R: CH, DE, FR, GB, LI				
	JP 06092924	A	19940405	JP 1992-243635	19920911
	JP 3326821	B2	20020924		
	US 5370822	A	19941206	US 1993-118668	19930910
PRAI	JP 1992-243635	A	19920911		
OS	MARPAT 121:96266				

L4 ANSWER 44 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 1994:232286 CAPLUS
 DN 120:232286
 TI Liquid-crystal composition and display devices containing it
 IN Hirose, Taku; Terashima, Kanetsugu; Sawada, Shinichi
 PA Chisso Corp., Japan
 SO Eur. Pat. Appl., 36 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 571916	A1	19931201	EP 1993-108348	19930524
	EP 571916	B1	19961002		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	JP 05331464	A	19931214	JP 1992-160011	19920528
	JP 2732335	B2	19980330		
	AT 143685	T	19961015	AT 1993-108348	19930524
	SG 70953	A1	20000321	SG 1996-510	19930524
	AU 9339842	A	19931202	AU 1993-39842	19930528
	AU 658738	B2	19950427		
	CN 1087664	A	19940608	CN 1993-108215	19930528
	US 5358662	A	19941025	US 1993-68952	19930528
PRAI	JP 1992-160011	A	19920528		
OS	MARPAT 120:232286				

L4 ANSWER 45 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 1994:19382 CAPLUS
 DN 120:19382
 TI Preparation of (trifluoromethoxy)benzene derivatives as liquid crystals
 and liquid crystal compositions containing them
 IN Mikajiri, Tsutomu; Matsui, Shuichi; Onchi, Juichi; Fujita, Atsuko; Goto,
 Yasuyuki
 PA Chisso Corp, Japan

SO Jpn. Kokai Tokkyo Koho, 30 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05221909	A	19930831	JP 1992-29686	19920217
	JP 3275265	B2	20020415		
PRAI	JP 1992-29686		19920217		

L4 ANSWER 46 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1993:30174 CAPLUS

DN 118:30174

TI Preparation of cyclohexylbenzonitrile derivatives as additives for nematic liquid-crystal compositions

IN Sasaki, Makoto; Takatsu, Haruyoshi; Takeuchi, Kyobumi

PA Dainippon Ink and Chemicals, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 04210669	A	19920731	JP 1990-401917	19901213
PRAI	JP 1990-401917		19901213		
OS	MARPAT 118:30174				

L4 ANSWER 47 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1992:437480 CAPLUS

DN 117:37480

TI Preparation of fluorophenylcyclodexyl ethers fluorine-substituted compound containing ether bond

IN Sasaki, Makoto; Takatsu, Haruyoshi; Takeuchi, Kiyofumi

PA Dainippon Ink Chemical Industry Co., Japan

SO Eur. Pat. Appl., 25 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 470590	A1	19920212	EP 1991-113259	19910807
	EP 470590	B1	19950104		
	R: CH, DE, GB, LI				
	JP 04095041	A	19920327	JP 1990-213344	19900810
	JP 04095042	A	19920327	JP 1990-213345	19900810
	JP 04095043	A	19920327	JP 1990-213346	19900810
	US 5208386	A	19930504	US 1991-744186	19910809
PRAI	JP 1990-213344	A	19900810		
	JP 1990-213345	A	19900810		
	JP 1990-213346	A	19900810		
OS	MARPAT 117:37480				

L4 ANSWER 48 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1992:117815 CAPLUS

DN 116:117815

TI Fluorinated liquid crystals for active matrix displays

AU Goto, Y.; Ogawa, T.; Sawada, S.; Sugimori, S.

CS Chisso Petrochem. Corp., Chiba, 290, Japan

SO Molecular Crystals and Liquid Crystals (1991), 209, 1-7

CODEN: MCLCA5; ISSN: 0026-8941

DT Journal

LA English

L4 ANSWER 49 OF 49 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1991:571575 CAPLUS

DN 115:171575

TI Dicyclohexylethylene derivatives and liquid-crystal composition containing them

IN Uchida, Manabu; Goto, Yasuyuki; Ogawa, Tetsuya

PA Chisso Corp., Japan

SO Eur. Pat. Appl., 19 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	EP 422958	A1	19910417	EP 1990-311225	19901012
	EP 422958	B1	19940427		
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	JP 03127748	A	19910530	JP 1989-265131	19891013
	JP 06062462	B	19940817		
	US 5055220	A	19911008	US 1990-579327	19900910
	AT 104939	T	19940515	AT 1990-311225	19901012
	KR 166067	B1	19990320	KR 1990-16165	19901012
PRAI	JP 1989-265131	A	19891013		
	EP 1990-311225	A	19901012		
OS	MARPAT 115:171575				